

REMARKS

Claims 1-39 are pending and under consideration in the present application, while claims 40-58 were withdrawn from consideration.

AMENDMENTS TO CLAIMS

The claims have been amended merely to further clarify that which was already claimed prior to the amendments. As such, the amendments introduce no new matter to the application and their entry by the Examiner is respectfully requested.

REJECTIONS/OBJECTIONS

The objections/rejections in the Action are discussed below (Paragraph sub-headings refer to the numbered paragraphs of the Action).

Paragraph 2

Pursuant to the Examiner's request, enclosed please find corrected drawings.

Paragraph 7

The Examiner rejected claims 1-2, 5-7, 9-11, 20, 25, 27, 31-32, and 38-39 under 35 U.S.C. 103(a) as being anticipated by Little et al. (US 6,024,025) in view of Bogen et al. (US 6,541,261).

As clarified by the amendments above, all of the pending claims require depositing a reagent drop set from multiple dispenser onto the same first site to make a moiety at that first site and then additionally depositing and detecting drops of the same drops at different separate sites (other than the first site). For example, claim 1 requires:

- (a) for each of multiple locations on the substrate, **depositing a reagent drop set during a cycle so as to attach a corresponding moiety for that location;** and.....
 - the method **additionally comprising:**
 - (c) **depositing and detecting drops of said reagent drop set at**

respective separate locations on the substrate from different dispensers which deposit a multi-dispenser drop group comprising said reagent drop set.

Accordingly, the claims require that the drops of a reagent drop set be deposited onto the same location of the array in a first step and then additionally deposited onto separate locations of the array and detected.

Little fails to teach or suggest the above limitation of the claimed invention. In particular, if Little's different pins which deposit matrix material and DNA are considered to be a multi-dispenser drop group of a reagent drop set, paragraph (c) above additionally requires the depositing and detecting drops of the reagent drop set at respective separate locations on the substrate from the different dispensers which deposit a multi-dispenser drop group. That is, in Little the matrix and DNA drops would additionally have to be deposited and detected at separate locations on the substrate surface, in addition to being deposited onto the same first location of the substrate. The Examiner has not alleged Little discloses any such feature, nor does it.

Bogen has been sited for teaching the element of detecting a drop while it is being deposited. While Applicant disagrees that Bogen can be properly combined with Little to arrive at the invention of these claims, it is noted that since the Bogen reference has been cited solely for the teaching of drop detection, Bogen fails to make up the above deficiency in Little in that Bogen fails to teach depositing the drops of a reagent drop set at a first site and then depositing and detecting the drops of the reagent drop set at second separate locations.

As such, claim 1 and the remainder of claims 2, 5-7, 9-11, 20, 25, 27, 31-32 and 38-39 that all require a same or narrower limitation as paragraph (c) of claim 1 are not obvious over Little in view of Bogen and this rejection may be withdrawn.

Paragraph 2 (page 9)

The Examiner next rejected claims 1-2, 6, 12, 18, 20, 25, 27, 31-32, and 38-39 under 35 U.S.C. 103(a) as being unpatentable over Shalon et al. (US 6,110,426) in view of Bogen et al (US 6,541,261).

However, Shalon merely discloses how to fabricate microarrays and then detect and analyze from them after use. The Examiner has not pointed to anything in Shalon which discloses or suggests that different dispensers which deposit a group of drops of a reagent drop set at a location (“a” location means the same location, i.e., the same first location), are also used to deposit drops of the reagent drop set at separate locations on the substrate which are then detected, i.e., separate locations from each other and the first location. Nor is there any such disclosure or suggestion.

Bogen has been sited for teaching the element of detecting a drop while it is being deposited. While Applicant disagrees that Bogen can be properly combined with Shalon to arrive at the invention of these claims, it is noted that since the Bogen reference has been cited solely for the teaching of drop detection, Bogen fails to make up the above deficiency in Shalon in that Bogen fails to teach depositing the drops of a reagent drop set at a first site and then depositing and detecting the drops of the reagent drop set at second separate locations.

As such, claim 1 and the remainder of claims 2, 6, 12, 18, 20, 25, 27, 31-32 and 38-39 that all require the same or narrower limitation as paragraph (c) of claim 1, are not obvious over Shalon in view of Bogen and this rejection may be withdrawn.

Paragraph 3 (page 12)

The Examiner next rejected claims 8-11, 13-14, and 33 under 35 U.S.C. 103(a) as being unpatentable over Little et al. in view of Bogen and further in view of Wilhelm et al (US 5,715,327). While Applicant disagrees that these references can be properly combined to arrive at the invention of these claims, it is noted that the rejected claims are dependent upon claim 1 or 25. This rejection therefore assumes that the invention of claims 1 or 25 is disclosed or suggested by Little in view of Bogen. As pointed out above though, the combined teaching of Little and Bogen neither discloses nor suggests the inventions of claims 1 or 25. Accordingly, even if Little and Bogen can be combined with Wilhelm et al. in the manner suggested by the

Examiner, the invention of dependent claims 8-11, 13-14, and 33 would still not be obtained. It is submitted in view of the above, this rejection may now be withdrawn.

Paragraph 4 (page 14)

Finally, claims 1-2, 6, 12, 18, 20, 25, 27, 31-32 and 38-39 have been rejected under 35 U.S.C. 103(a) over Shultz et al (US 6,346,290) in view of Bogen et al.

However, Schultz merely discloses how to fabricate arrays of materials. The Examiner has not pointed to anything in Schultz which discloses or suggests that different dispensers which deposit a group of drops of a reagent drop set at a location (“a” location means the same location, i.e., the same first location), are also used to deposit drops of the reagent drop set at separate locations on the substrate which are then detected, i.e., separate locations from each other and the first location. Nor is there any such disclosure or suggestion.

Bogen has been sited for teaching the element of detecting a drop while it is being deposited. While Applicant disagrees that Bogen can be properly combined with Schultz to arrive at the invention of these claims, it is noted that since the Bogen reference has been cited solely for the teaching of drop detection, Bogen fails to make up the above deficiency in Schultz in that Bogen fails to teach depositing the drops of a reagent drop set at a first site and then depositing and detecting the drops of the reagent drop set at second separate locations.

As such, claim 1 and the remainder of claims 2, 6, 12, 18, 20, 25, 27, 31-32 and 38-39 that all require the same or narrower limitation as paragraph (c) of claim 1, are not obvious over Schultz in view of Bogen and this rejection may be withdrawn.

ALLOWABLE CLAIMS

It is noted that claims 3, 4, 15, 16, 17, 19, 21-24, 26, 28-30 and 34-37 were not rejected for any reason in the last office action and are therefore allowable in their current form.

REQUEST TO WITHDRAW FINALITY OF OFFICE ACTION

Finally, the Examiner stated at the end of the office action that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, this action is made Final."

The amendments made in response to the first office action were:

Claim 1 & 25: the inclusion of the phrase "of(a) and (b)" in step b;

Claims 3, 4, 17, 21 & 26: changing the word "drop" to "group";

Claim 5: inclusion of the phrase "in (c)";

Claim 6: inclusion of the phrase "separate locations on the substrate,";

Claim 20: inclusion of the phrase ", until the addressable array is formed" in step (b);

Claim 38: inclusion of the phrase "over one or more cycles of (a) and (b)" in step (b).

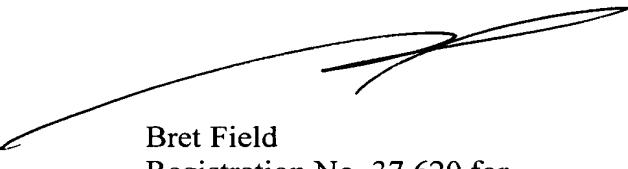
In response to the above amendments, the Examiner has withdrawn all of the previous rejections, and introduced new art rejections based on newly cited references, e.g., Bogen and Schultz.

It is respectfully submitted that the amendments made above did not result in new limitations which necessitated the entry of the new rejections, since these rejections could have been made in the first office action. As such, the Examiner is respectfully requested to withdraw the finality of the last office action.

CONCLUSION

In view of the above, it is believed that claims 1-39 as amended should now be in condition for allowance. If the Examiner is of the view that there are any outstanding issues, he is invited to call Gordon Stewart at (650)485-2386.

Respectfully submitted,



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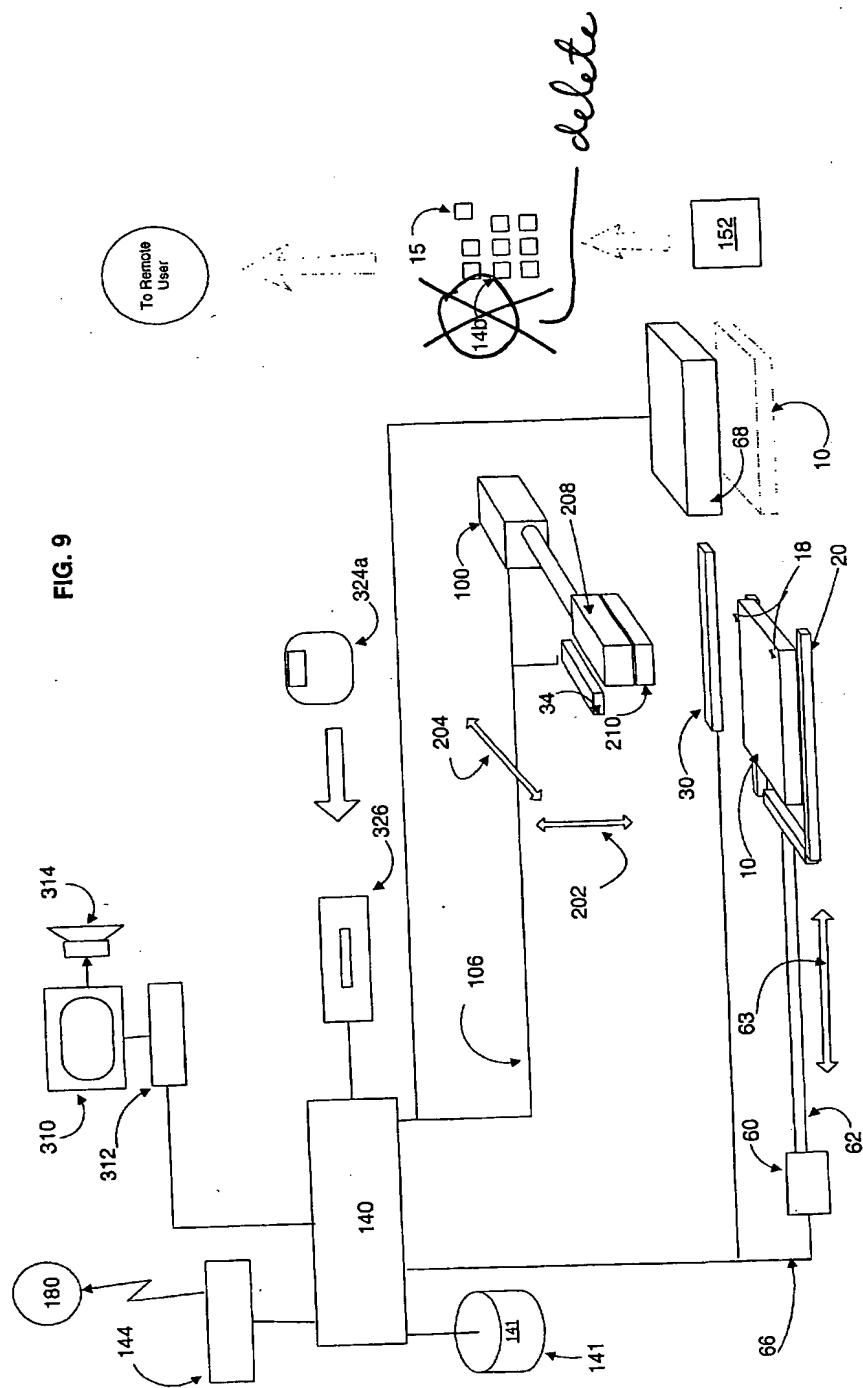
- Replacement Sheet Figure 9
- Annotated Sheet Figure 9

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10004397-1 Response to office action of 7-29-03



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FIG.



Annotated Sheet